## AMENDMENTS TO THE CLAIMS

1. (original) A fuel cell comprising a cell element, in which a cathode layer is formed on one side of an electrolyte membrane and an anode layer is formed on the other side thereof, and generating an electromotive force through oxidation-reduction reaction, which occurs via the electrolyte membrane, between a fuel such as methane and an oxidant such as oxygen supplied,

wherein at least one of the cathode layer and the anode layer contains an electrode material.

2. (original) The fuel cell according to claim 1, wherein a catalyst metal is supported by the carbonized silk body.

3. (original) The fuel cell according to claim 1, wherein the carbonized silk body has a catalyst layer including a carbon material which supports a catalyst metal.

4. (currently amended) The fuel cell according to claim 2 ~~or 3~~, wherein the catalyst metal is platinum or platinum-ruthenium.

5. (currently amended) The fuel cell according to claim 1, ~~2 or 3,~~ wherein the carbonized silk body is formed into a sheet-shaped with airspaces by burning the cloth-formed silk material.

6. (currently amended) The fuel cell according to claim 1, ~~2 or 3,~~ wherein a harmful substance decomposer is supported by the carbonized silk body.

7. (original) The fuel cell according to claim 6, wherein the harmful substance decomposer is metallophthalocyanine derivative.

8. (original) An electrode material for a fuel cell being composed of a carbonized silk body obtained by burning a silk material.

9. (original) The electrode material according to claim 8, wherein a catalyst metal is supported by the carbonized silk body.

10. (original) The electrode material according to claim 8, wherein the carbonized silk body has a catalyst layer including carbon powders which support catalyst metals.

11. (currently amended) The electrode material according to claim 9 ~~or 10~~, wherein the catalyst metal is platinum or platinum-rutheniium.

12. (currently amended) The electrode material according to claim 9 ~~or 10~~, wherein the carbonized silk body is formed into a sheet-shaped with airspaces by burning the cloth-formed silk material.

13. (currently amended) The electrode material according to claim 8, ~~9 or 10,~~ wherein the silk material is burned at temperature of 1000-3,000°C.

14. (currently amended) The electrode material according to claim 8, ~~9 or 10,~~ wherein the carbonized silk body is activation-treated so as to form many micro fine holes in a surface thereof.

15. (original) A method for producing an electrode material of a fuel cell, which is constituted by a carbonized silk body, comprising a plurality of steps of burning a silk material in an inert gas atmosphere so as to form the carbonized silk body ,

wherein each of the burning steps comprises the steps of:

primary-burning the silk material with temperature rising rate of 100°C /hour or less until reaching a burning temperature and maintaining the burning temperature for several hours;

cooling the burned silk material until reaching the room temperature; and

secondary-burning the silk material at another burning temperature, which is higher than the burning temperature of the primary-burning step.

16. (original) The method according to claim 15, wherein the burning temperature of the final burning step is 1000-3,000°C.

17. (original) The method according to claim 15, further comprising the step of supporting a catalyst metal on the carbonized silk body.

18. (currently amended) The method according to claim 15 ~~or 16~~, wherein the silk material is formed into cloth made of yarns.

19. (currently amended) The method according to claim 15 ~~or 16~~, further comprising the step of exposing the silk material, which has been secondary-burned, to high-temperature steam as an activation treatment.